

## CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Carbon Energy Reserve Proposed Implementation Date: Spring 2008Proponent: Raymond Lowrie, Carbon Energy Reserve, Inc.Type and Purpose of Action: Drilling/Coring for Coal ReservesLocation: Portions of Sections 30, 31 and 32, T7S R21E; Sections 1,11,12,13, and 14, T8N R20E; Sections 5 through 8, 17 through 23, 25, and 26, T8S R21E; and Sections 27 through 30, T8S R22E. County: Carbon

N = Not present or No Impact will occur.

Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactable or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?	[N] The area is mostly remnant mountain pediment with poorly developed, rocky soils, in the foothills of the Beartooth Plateau. No unusual soil conditions were noted. The area lies northeast of the Meeteetse Spires and Beartooth Uplift, but contains no unusual geologic features.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] The access routes involve two crossings of the intermittent Wolf Creek drainage (in Sections 19 and 21, T8S R21E) and one crossing of a flowing reach of Bear Creek (in the SW¼ of Section 11, T8S, R20E. All three crossings will employ temporary culverts as needed; as noted in Item 6 below, a 310 permit was obtained from the Carbon County Conservation District on June 18, 2007 for the crossing of the running reach of Bear Creek.  No private wells have been identified in the immediate vicinity (within one mile) of any of the drilling sites. Carbon Energy has committed (under 17.24.1005 and 1011) to take whatever measures are necessary to prevent contamination, diminution, or cross-aquifer contamination of water supplies. This commitment, combined with the general drilling standards of 17.24.1005, should adequately protect water supplies.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] The area lies within a few miles of the Beartooth Wilderness, but the limited activity proposed should pose no threat to air quality standards.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	[N] The project area is primarily mixed upland grass and shrubs, with occasional patches of riparian vegetation in the larger drainage bottoms. The majority of the access routes would be along established 2-track trails and ranch roads. Limited road development would be necessary to provide safe access to some of the sites. The well pads would be approximately 1.0 acre or less in size. Cuttings will be hauled away and disposed of off-site. All surface disturbances would be seeded with an approved seed mix following the drilling and reclamation of the site.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] There have been isolated sightings of lone grey wolves since the Yellowstone Park reintroductions, but no sustained evidence of wolf use. Elk are reported to have been sighted in the area. Again, no substantial use has been noted. Mule deer and pronghorn, along with a variety of raptors, song birds, and small mammals are known to regularly inhabit the area. No threatened or endangered species are known to be residents of the area.

6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[Y] See (5) above. The applicant has obtained a 310 permit from the Carbon County Conservation District for one proposed crossing of Bear Creek. No other crossings of major drainages or effects on wetlands have been are involved.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] The drilling sites have all been subjected to an intensive-level cultural resources inventory. No evidence of cultural materials was noted. The applicant has retained an archeological contractor to conduct an intensive inventory of BLM-controlled access (subject to a BLM use license) beyond the permit boundary. The historic Meeteetse Trail (still in active public use) runs near the southwest corner of the project area.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] The project would be within sight (3-4 miles) of the Meeteetse Spires and Beartooth Plateau. The visual effects of the incidental and relatively small-scale activity associated with drilling should be minimal, and transient. No excessive noise or light is anticipated.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N] Water for drilling would be purchased and hauled in. There is no other known nearby activities that would affect the project.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	[N]
IMPACTS ON THE HUMAN POPULATION	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] The drilling contractor would employ OSHA-related safety standards to the drilling activity.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] The project is located on grazing land of a large private ranch, and would cause minimal and transient interruption of grazing activities.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so estimated number.	[N] No significant effect on local employment is anticipated.

14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No effect anticipated.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[N] No effect anticipated. No unusual demand on local services is anticipated.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] The area is primarily classified as agricultural lands. Some access into the permit area is controlled by the USBLM, and subject to BLM management plans.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No known recreational or wilderness access runs through the area. Custer National Forest and the Beartooth Wilderness lie within a few miles to the west of the project area, but no effects on these lands are anticipated. The only known recreation potential is seasonal hunting activity, and access is largely controlled by the private ranching company controlling the surface.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

22. Alternatives Considered: Non-issuance of the Prospecting permit, or issuance of the permit with stipulations. Permit stipulations regarding project access routes and bonding would likely be added.

23. Regulatory Impact on Private Property: Minor and transient. Bonded sites would require periodic DEQ inspection access during the next 5 years.

24. Public Involvement, Agencies, Groups or Individuals contacted: Public notice published in the local newspaper for four consecutive weeks (July 4, 11, 18, and 25, 2007) followed by a 30-day public comment period, which ended on August 24, 2007. No comments were received.

25. Other Governmental Agencies with Jurisdiction, List of Permits Needed: BLM special use license for selected permit access - pending; Army Corps of Engineers 310 Permit for Bear Creek crossing - issued.

26. Magnitude and Significance of Potential Impacts: The impacts of this project are considered to be minor and transient in nature.

Recommendation for Further Environmental Analysis:

EIS     More Detailed EA     No Further Analysis

EA Checklist Prepared By: Robert P. Bohman  
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November 23, 2007  
Date